

Mobile Knowledge, Karma Points and Digital Peers: The Tacit Epistemology and Linguistic Representation of MOOCs

Savoir mobile, points de karma et pairs numériques : l'épistémologie tacite et la représentation linguistique des MOOC

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Abstract

Media representations of massive open online courses (MOOCs) such as those offered by Coursera, edX and Udacity reflect tension and ambiguity in their bold promise of democratized education and global knowledge sharing. An approach to MOOCs that emphasizes the tacit epistemology of such representations suggests a richer account of the ambiguities of MOOCs, the unsettled linguistic and visual representations that reflect the strange lifeworld of global online courses and the pressing need for promising innovation that seeks to serve the restless global desire for knowledge. This perspective piece critically appraises the linguistic laboratory of thought such representation reveals and its destabilized rhetoric of technology and educational practice. The mobile knowledge of MOOCs, detached from context and educational purpose and indifferent to cultural boundary distortions, contains both the promise of democratized education and the shadow of post-colonial knowledge export.

Résumé

Les représentations médiatiques des cours en ligne ouverts et massifs (MOOC en anglais) comme ceux offerts par Coursera, edX et Udacity reflètent une tension et une ambiguïté occasionnées par leur audacieuse promesse de démocratisation de l'éducation et de partage global du savoir. Étudier les MOOC en accentuant l'épistémologie tacite de ces représentations mène à une explication plus riche des ambiguïtés inhérentes aux MOOC, de l'incertitude des représentations linguistiques et visuelles reflétant l'étrange monde vécu des cours en ligne à l'échelle globale et le besoin pressant d'innovation prometteuse visant à répondre au désir insatiable de connaissance à travers le monde. Le présent essai évalue de manière critique le laboratoire linguistique d'idées révélées par une telle représentation ainsi que son discours instable sur la technologie et sur les pratiques pédagogiques. Libéré de tout contexte et d'objectif

pédagogique et indifférent aux distorsions des barrières culturelles, le savoir mobile des MOOC contient à la fois la promesse d'une éducation démocratisée et le spectre d'un savoir postcolonial.

Introduction

In March 2013, Coursera, a year-old company founded by two Stanford University computer scientists, offered more than 300 free massive open online courses, or MOOCs. Coursera promises free access to a world-class education taught by faculty at top universities and the opportunity to join a global community of more than a million students. Its pedagogy is said to allow students to master concepts quickly and effectively, with interactivity and frequent feedback to assure student engagement and crowd-sourcing techniques to aid in reliable grading. Coursera posts links on its website to research that suggests that online outcomes equal or surpass traditional course instruction and allow *flipping*, in which online content replaces lectures and textbooks in real world universities and allows greater interactive hands-on work in real world classrooms. MOOCs also suggest an independent future for star faculty who disaggregate from traditional universities and offer courses to tens of thousands of students worldwide.

Original partners of Coursera include the University of Michigan, Princeton University, Stanford University and the University of Pennsylvania. Additional universities have since joined, including Duke University, Johns Hopkins University, Rice University, the University of California, the University of Washington, Berklee School of Music and others, as well as such international partners as the University of Toronto, University of British Columbia, Hong Kong University of Science and Technology, The Hebrew University of Jerusalem and École Polytechnique Fédérale de Lausanne. Another Ivy League MOOC, edX, a joint venture by MIT, Harvard and UC Berkeley, offers diverse courses on such subjects as Introduction to Computer Science and Programming, Foundations of Computer Graphics, Introduction to Solid State Chemistry and in spring 2012, courses in the humanities and social sciences such as Justice, The Ancient Greek Hero, and Human Health and Global Environmental Change. The first edX course that ran from March 5th to June 8th, 2012 enrolled over 150,000 students. Coursera enrollments have now topped 3 million students, with non-U.S. students accounting for about two thirds of signups (Coursera, 2013). Closer analysis of MOOCs as socio-technical systems suggests that MOOCs reflect institutionalized patterns of power and authority yet manifest multiple possibilities and multistability as they evolve (Ihde, 2009; Winner, 1989).

Planet-scale learning: The linguistic representation of MOOCs

Website representations of Coursera, EdX, and Udacity emphasize access to top universities, knowledge access and convenience (“we know that your life is busy”), and crowdsourced grading enabled by the appearance of a familiar course format with the professor as course avatar (Coursera, 2013). The emphasis by Coursera on anytime/anyplace access, digital peers, and a planet-wide community promises a dynamic, highly interactive learning experience in which courses exist detached from physical contexts of meaning and real world university brands hover over course sites. Harvard and MIT seek by their experimental venture to enrich the traditional campus model of learning, research online pedagogies and the ways in which technology transforms student learning (edX, 2013).

As online learning communities, MOOCs promise prospective students the prospect of joining “a global community of thousands of students learning alongside you” (Coursera, 2013). Udacity invites students to become “Udacious” who have the opportunity for real world “Udacity Meetups” in various cities such as Koyampattur, San Francisco, Delhi, Accra, New York, Barcelona and Bangalore (Udacity, 2013). Coursera has its own initiative to overcome geographical boundaries and create real world meetups in cities such as Moscow, London, Mumbai and Toronto. Yet paradoxically in courses with massive, diverse, distant, student bodies, Udacity affirms the promise that “at Udacity we put you, the student, at the center of the universe” (Udacity, 2012). Such language coexists uneasily with the premise of meetups that offer real world connection in places where Udacious happen to find themselves. The promise of being at the center of the universe turns out to be empty – there is no such place. Udacity *is* no place.

The open, shifting and indeterminate ontology of MOOCs, with its vivid website depiction of traditional college age students posed against real world images of university buildings (edX, 2013), renders theoretical analysis of MOOCs difficult. It gives rise to provocative questions about how we should understand the particular disruption MOOCs pose to traditional educational institutions, what they suggest for how we should think about emerging educational models and how we should appraise the role of preeminent institutions in promoting the “world’s best courses” and the “best professors” (Coursera, 2013). Such language with its implicit condescension toward non-affiliated institutions in the U.S. or abroad encourages Udacious, edXers and Courserians, to enroll not only in online, branded courses but to be co-opted by the interests of powerful institutions in their own educational positioning. The language of “top universities,” “world class education” and “the best professors” (Coursera, 2013) hardly conceals an assumed claim superiority of knowledge and a model of education ready for export without concern for cultural boundary distortions. But context and educational purpose matter in defining what constitutes knowledge. Coursera courses, like any other courses, are not culturally neutral. Best universities and best professors are best in relation to particular purposes of particular places at particular times, and knowledge export, with its assumption of universalizability, carries with it inherent tensions at the intersection of cultures and traditions (Harding, 2011).

The discourse and evolving practice of MOOCs is for this reason experimental, ambiguous and unresolved. Its many strands suggest different futures depending on which strand one chooses – eventual corporate wealth maximization with global reach, a movement of MOOCs toward establishing identity verification, course credit, and “x degrees,” or programs that develop in unexpected directions in blended traditional university and MOOC partnerships. In the myriad positions on MOOCs that have emerged — from utopian hopes for greater access to education by students traditionally barred from such education to skeptical arguments about hype, disruption to traditional learning models and knowledge fragmentation — the irresolution in how we should think about MOOCs and their still to be realized potential reflect paradoxes of education as it globalizes, where (free) knowledge is a precious export of powerful institutions and a course — whether on artificial intelligence or circuits and electronics — is more than a course.

The course: An idea

At present MOOCs make access to an individual course their main priority, though this singular focus is concealed by the university brand which suggests a larger educational mission, as well as creating a real world campus aura that shapes perception of the virtual modality of x courses and x universities. The first MOOC offered by MIT, *MIT, 6.002x Circuits and Electronics*, enrolled more than 150,000 learners and established a common nomenclature for online (x versions) of existing university classes, with participating institutions in the network of universities offering x courses termed “x universities” (edX, 2013). This early alignment of real world courses with their x equivalent obscures the paradox of the atomized course with the borrowed familiarity of a real world university. Further paradox exists in the very idea of an x course, even when disguised by certificates of completion and the accomplishment and finality they promise. When the Coursera website states that it wants to empower people with education to improve their lives, the lives of their families, and their communities it is easy to forget that in real world contexts the courses we invest most effort and financial sacrifice in obtaining and providing for each new generation are situated in credit-granting institutions, with a degree path and educational mission that orders and guides course selection (and credentials its graduates). In institutional contexts a course is envisioned in relationship to a whole, which gives purpose and meaning to a single course. A student studies a foreign language for its own sake as part of a liberal education, but also as part of a conception of knowledge that considers language learning vital.

The Coursera, edX and Udacity representation of a course conjures a different reality. The computer science, poetry, history, mathematics or economics courses offered are represented as free floating, independent projects, aligned only with their real world equivalent, as if they bear no relation to the deeper knowledge practices of the institution from which they derive, with its social practices of faculty recruitment, standards of research and pedagogy and cultural context that defines how subjects are taught. Like Guatemalan blouses or any other item on sale at a big-box store, a Coursera course is branded for appeal yet detached from its context in order to be more readily consumed. But the Coursera course, just as the edX course, is in reality a situated course, derived from an institution with specific practices and inescapable interests, even if “so noble, so new, so different” as MIT Provost, L. Rafael Reif, states in the introductory video on the edX website (Rodrik & Sun, 2012). Its technic is embodied but masked, with multistable trajectories across myriad contexts (Ihde, 2009, 2010). The x course is both a course yet not a course.

Whose knowledge?

With paradox in the strange discourse of MOOCs and their even stranger ontology, MOOCs suggest knowledge colonization by “world class universities,” a de-emphasis on a coherent curricular vision and the increasing atomization and detachment of the idea of a course (Coursera, 2013). Rethinking MOOCs as atomized and dislocated courses, rendered planetary for students seeking anywhere, anytime study, reveals the ambiguities inherent in the discourse of MOOCs. The research university that produced the x professor and brands the MOOC is eclipsed by an automated system that rewards with “karma points” (Lewin, 2012) for those students whose grading proves highly accurate by comparison with the professor’s. In one revealing observation, former MIT President Susan Hockfield remarked that MOOCs are not an enemy of

residential education but “a profoundly liberating ally” (Lin, 2013). But liberating for whom and to what end? Knowledge in itself without a larger narrative of purpose lacks moral meaning, and with the “first world” imprimatur given to the courses and the hopes and expectations that student data will be a test bed for educational experiments, the creation of an unspoken post-colonial project uncomfortably shadows the hope for democratized access to education. As MOOCs increasingly enable the recruitment of exceptional students from around the world, MOOCs are poised to contribute their part to the brain drain already afoot in the developing world, raising more questions about the *artifact* that is a MOOC course (Verbeek, 2011). Like other technology-enabled manifestations of the information revolution — the surgical strikes of predator drones, executed from afar, and the sabotage and espionage of cyber war technologies — technology enabled MOOCs confront us with hybridized forms of virtual experience in which the course profiles a real world professor as the promise of a link to place, much as the pilots of predator drones sit detached from real world violence in Nevada control centers yet represent the only humanity we can glimpse as drones leave one continent for another.

Even more disconcerting is the hint of noblesse oblige in the aim of x universities sharing knowledge more broadly rather than offering a model of exchange that recognize distinguished forms of education in different cultural contexts for different purposes. The liberating ally that MOOCs could become for institutions that invest in x courses might eventually contribute to heightened awareness of radical differences in knowledge constituted in different places and differently applied. Thus far such awareness is not reflected in any way in the representation of MOOCs. Instead Coursera promises “higher education that overcomes the boundaries of geography,” (Coursera, 2013) with the increased internationalization of participating universities serving only to consolidate its tacit epistemology. The language of MOOCs at this time of euphoric possibility has become its own linguistic *lifeworld*, a cultural and linguistically organized reservoir of meaning patterns (Habermas, 1985), with its terms and its corporate representations borrowed from traditional educational practice (course, instructor, content, textbooks, assignments, field trips, pedagogical research) but each destabilized in its virtual modality.

In both reflecting and forming new ways of thinking about experimental online learning, such destabilized rhetoric makes for revealing social and political cross-currents and shifting, transcendent learning communities with contested boundaries (Latour, 2007). With evolving efforts to understand and represent the new realities of massive online education and disagreement over how thought and discourse should constitute them, the language of MOOCs reveals a contested linguistic laboratory for thought and complex open possibilities for the co-construction of subjects and objects, and humans and things (Verbeek, 2005). Complaints are common about the utopianism and inflationary zeal of MOOC rhetoric – embodied in such phrases as “the biggest change since the printing press” and “profoundly liberating ally” (Chandler, 2012) — with some arguing for a more measured sense of the strengths and weakness of online pedagogies and an appreciation for transformational learning that closed pedagogical systems find difficult to achieve (Butin, 2012). Still other critics decry the celebration of *massification* and contend that whatever MOOCs provide they may satisfy the curious but they cannot provide a learning community (Guthrie, 2012).

No theory of interpretation, however, provides a settled philosophical language to appraise fully the unusual and emergent ontology of MOOCs. Unbridled possibility and uncertainty exist in

information sharing and open platforms. Not even skeptics find it easy to be wholly skeptical about the transformation in teaching and learning MOOCs promise. Given the versatility and boundless capacities of information technologies and their global reach, the future directions of MOOCs are still to be crafted as the distinction between knowledge and real world contexts dissolves. The discourse of MOOCs has confused the distinction between taking a course at a traditional institution with blended online elements and taking a MOOC with a virtual professor, discussion boards, assignments and interactive exchanges. This confusion reinforces the versatile, fluid nature of MOOCs and their embodiment of the values of mobile knowledge and high interactivity. With such blending linguistic practice is transformed, technological values are more fully internalized, new practices are rationalized and the possibility of new and more subtle “forms of control” in the mass consumption of modes of thinking (Marcuse, 1964) are born that risk the promise of democratized education.

Rethinking MOOCs as a destabilizing and disruptive form of pedagogy and community (Christensen, Horn, Soares & Caldera, 2012) reveals the ambiguities of massive online courses, highlights the conflicted language of MOOCs and encourages greater public involvement in the evolution of x courses. Demands for greater reach for remedial and low income students, more meaningful certification of successful completion, course scaffolding and degree access, and more holistic conceptions of the meaning of an x course on its own, if realized through public influence, would go some way in making the bold experiment of MOOCs more tenable and the democratizing of education more genuine. But deeper concerns will remain regarding post-colonial knowledge export, elitist institutional positioning and the de-culturing of knowledge through *massification*. For these issues, a more critical epistemology is required.

Such awareness of the philosophically and politically *informed* nature of MOOCs is essential if human beings are to participate in the evolution of knowledge practices that support rather than diminish human life and capabilities. An approach to MOOCs that recognizes their tacit epistemology promises a richer account of the ambiguities of MOOCs, the unsettled linguistic and visual representations that reflect the strange lifeworld of planetary x courses and the pressing need for “promising innovations” that serve the restless, global desire for knowledge (Feenberg, 1999).

References

- Adams, S. (2012, July 17). Is Coursera the beginning of the end for traditional higher education? *Forbes*. Retrieved from <http://www.forbes.com/sites/susanadams/2012/07/17/is-coursera-the-beginning-of-the-end-for-traditional-higher-education/>
- Boxall, M. (2012, August 8). MOOCs: a massive opportunity for higher education, or digital hype? *The Guardian*. Retrieved from <http://www.guardian.co.uk/higher-education-network/blog/2012/aug/08/mooc-coursera-higher-education-investment>
- Butin, D. (2012, June). What MIT should have done. *eLearn Magazine*. doi: 10.1145/2241156.2263018.

- Chandler, D. L. (2012, May 2). MIT and Harvard launch a 'revolution in education.' *MIT News*. Retrieved from <http://web.mit.edu/newsoffice/2012/edx-launched-0502.html>
- Christensen, C.M., Horn, M.B., Soares, L., Caldera, L. (2011, February 8). Disrupting college: How disruptive innovation can deliver quality and affordability to postsecondary education. *Center for American Progress*. Retrieved from http://www.americanprogress.org/issues/2011/02/disrupting_college.html/
- Coursera (2013). Retrieved from <https://www.coursera.org/>
- edX (2013). Retrieved from <https://www.edx.org/>
- Feenberg, A. (1999). *Questioning technology*. New York: Routledge, Inc.
- Guthrie, D. (2012, December 17). Jump off the Coursera bandwagon. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Jump-Off-the-Coursera/136307/>
- Habermas, J. (1985). *The theory of communicative action, Volume 2: Lifeworld and system: A critique of functionalist reason* (T. McCarthy, Trans). Boston: Beacon Press (Original work published 1981).
- Hardesty, L. (2012, July 15). Lessons learned from MITx's prototype course. *MIT News*. Retrieved from <http://web.mit.edu/newsoffice/2012/mitx-edx-first-course-recap-0716.html>
- Harding, S. (2011). *The post-colonial science and technology studies reader*. Durham, NC: Duke University Press.
- Ihde, D. (2009). *Postphenomenology and technoscience: The Peking University lectures*. Albany, NY: State University of New York Press.
- Ihde, D. (2010). *Embodied technics*. Copenhagen, Denmark: Automatic Press/VIP
- Latour, B. (2007). *Reassembling the social: an introduction to actor-network theory*. Oxford: Oxford University Press.
- Lewin, T. (2012, July 18). One course, 150,000 students: Questions and answers with Anant Agarwal. *The New York Times*. Retrieved from <http://www.nytimes.com/2012/07/20/education/edlife/anant-agarwal-discusses-free-online-courses-offered-by-a-harvard-mit-partnership.html>
- Lin, L. (2013, February 5). HarvardX and MITX merge under edX. *The Tech Online*, 132(65). Retrieved from <http://tech.mit.edu/V132/N65/edx.html>
- Marcuse, H. (1964). *One-dimensional man*. Boston: Beacon Press.
- McKenna, L. (2012, May 11). The big idea that can revolutionize higher education: MOOC. *The Atlantic*. Retrieved from <http://www.theatlantic.com/business/archive/2012/05/the-big-idea-that-can-revolutionize-higher-education-mooc/256926/>
- Oremus, W. (2012, July 18). Coursera, Udacity, edX: Will free online Ivy League courses end the era of expensive higher ed? *Slate*. Retrieved from

http://www.slate.com/articles/technology/future_tense/2012/07/coursera_udacity_edx_will_free_online_ivy_league_courses_end_the_era_of_expensive_higher_ed_.html

Rodrik, D. & Sun, K. (2012, October 4). EdX: Harvard's New Domain. Retrieved from <http://www.thecrimson.com/article/2012/10/4/edx-scrutiny-online-learning/>

Udacity (2013). Retrieved from www.udacity.com/

Verbeek, P. (2005). *What things do: philosophical reflections on technology, agency and design*. University Park, PA: Pennsylvania State University

Verbeek, P. (2011). *Moralizing technology: understanding and designing the morality of things*. Chicago: University of Chicago Press.

Winner, L. (1989). *The whale and the reactor: The search for limits in an age of high technology*. Chicago: University of Chicago Press.

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